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Striker Striker & Stenby
103 East Neck Road
Huntington, NY 11743

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AMINI, JAVID A	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 13

Application Number: 09/673,313
Filing Date: November 24, 2000
Appellant(s): GEISLER, THOMAS

Michael J. Striker
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on February 19, 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct, and the rejection of 35 U.S.C. 112 second paragraph has been withdrawn.

(7) Grouping of Claims

Claims 1 and 13 are independently patentable. The other claims stand and fall together with claim 1.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,408,603	Van De Lavoir et al.	04-1995
5,359,531	Iwamoto et al.	10-1994

(10) Grounds of Rejection

The following grounds of rejection are applicable to the appealed claims:

Claims 1-6, 8, 9, 11 and 12 rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office Action, Paper No. 10.

Claims 7, 10 and 13 rejected under 35 U.S.C. 103(a). This rejection is set forth in prior Office Action, Paper No. 10.

(11) Response to Argument

- ➢ Appellant in paragraph 3 on page 8 argues that the Examiner cited col. 37, lines 23-38 of the Van de Lavoir et al. patent and indicated that the reference teach the concept of the claimed language, in particular that a calculation is performed between two stored graphics. And Appellant concludes that neither in this portion nor in other portion of the patent to Van de Lavoir et al. there is no disclosure that the graphic objects can be stored.
- ✓ Examiner's reply: refer to col. 28 lines 43-51 for better understanding of calculation of two stored graphics disclose "one of the functions of the process control display program is to change the visual quality or color of the graphical icons (object) and their associated incoming and outgoing lines or "pipes" based on changing live data (or periodically updated data; meaning from time to time the privous data for the graphic objects updated with the new set of data for the graphic objects. The new addresses of the stored graphic objects will be calculated every time.), the program constructs a list of operands (calculation) used in the program statement. This list is stored as a data structure in computer memory. The list is used to store the live data values needed to dynamically update the icons (graphic objects).

- Appellant in first paragraph on page 9 argues that the connecting lines between the items shown in the display are represented with stored ink. This portion of the reference deals not with the object, but instead with the represented lines.

✓ Examiner's reply: The argument is not relevant, because Appellant does not refer Examiner where the stored ink comes from. Examiner assumes the Appellant means col. 37, lines 22-37 of the reference Van de Lavoir et al. disclose the dynamic control of visual quality or color of the icons themselves is comparatively straightforward, evaluating the visual quality or color of the incoming (left) and outgoing (right) lines merits some additional discussion. The line-coloring algorithm uses two pen colors, a "current" pen color and a "stored" pen color. The stored pen color is retained on a per node basis in the parse tree. In the source code listing the current pen color is identified cur_colour and the stored pen color is identified static_ colour. The stored pen color (static_colour) may be allocated as a static variable and is initialized to BLUE when first evaluating the incoming lines (left lines). The current pen color (cur_colour) may be allocated on the stack. Appellant should know that the two pen colors (different brightness not ink) visually distinguished a first condition from a second condition on the basis of its visual quality. Appellant illustrates a similar concept (0 designates the darkest value and 255 the brightest value) in figs. 1a-c.

- Appellant in paragraph 3 on page 10 argues that the reference Iwamoto et al. do not provide any hint or suggestion for such modifications.

✓ Examiner's reply: the reference Iwamoto et al. teach an apparatus for displaying (in bit-map type see fig. 1B step 14, similar to Appellant's claim invention) data in a machine

having a plurality of sensors which gather data values such as speed (as Appellant discloses in second paragraph on page 7 "the speedometer" of specification), pressure and temperature. A casting control data processing mechanism may also be provided for displaying shot-time items and fluctuations through repeated injection cycles to monitor casting operation, where displays are based on the detected data from the input-calibration mechanism. Since the reference Iwamoto et al. discloses indicators as a speedometer, pressure and temperature, the indicators should have a movable pointer along a scale. Iwamoto et al. in fig. 10 illustrate different velocities (low and high) and also movable graphic object along a scale.

✓ Examiner note: Bitmap, bit image or pixel image means a data structure in memory that represents information in the form of a collection of individual bits (see Microsoft Computer Dictionary Fifth Edition page 61).

➢ Appellant in second paragraph on page 11 argues that the reference Van de Lavoir et al. in figs. 13 illustrate a similar pointer. In accordance with the present invention a pointer is always the same object, which is movable along a scale to identify a corresponding value.

✓ Examiner's reply: Van de Lavoir et al. in figs. 13 and b illustrate one indicator in different situations, the pointer is always the same object that is movable along a scale to a corresponding value.

➢ Appellant in third paragraph on page 11 argues that the combination of the references Van de Lavoir et al. and Iwamoto et al. do not teach the new features of the claim 13.

- ✓ Examiner's reply: The claim invention of claim 13 is as following: "wherein the object is a pointer and wherein the pointer moves along a scale, wherein in different position of the pointer, graphical representations are calculated and stored in advanced" Van de Lavoir et al. in figs. 13 and b illustrate one indicator in different situations, the pointer is always the same object that is movable along a scale to a corresponding value. And Iwamoto et al. in right side of fig. 10 (measured data: meaning calculated and stored in advanced) illustrate the graphical representation are calculated and stored in advanced.
- ➢ Appellant in second paragraph on page 12 argues about the rejection of the claim under 35 U.S.C. 112.
- ✓ Examiner's reply: The rejection of the claims 1 and 2 under 35 U.S.C. 112 has been withdrawn.

For the above reasons, it is believed that the rejections should be sustained.

- **Pervious office action rejection:**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 8, 9, 11 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Van de Lavoir et al.

1. Claim 1.

"A method for representing objects in bitmapped format on a matrix like display device, having the following steps: calculating a plurality of bit maps for a certain number of various object representations along a predetermined path curve in advance; storing the plurality of bit maps in memory in advance; and executing a representation processing with a display sequence of object representations along the path curve by reading and displaying correspondingly memorized bit maps, where the object moves along the path curve during the representation processing and displaying of the correspondingly memorized bit maps." Van de Lavoir discloses in Fig. 23 step 372 that, the parse tree is again traversed to assign position coordinates and icon rendering data (e.g., bitmaps) to each node. Van de Lavoir illustrates in Fig. 7b example of the representation of a process control statement using dynamic graphical icons. In this case is representing the delay time along a predetermined path curve in advance, also see Figs. 13a and b (col. 21, lines 30-45). Van de Lavoir discloses in (col. 8, lines 15-20) the process control computer will typically include data storage capability, often in the form of random access memory. This memory may

be used to store the digital and analog input and output values by suitably encoding the values into a form capable of being stored as binary digits in the computer memory.

Van de Lavoir illustrates in Fig. 16b, the live data module is responsible for collection, storage and conversion (formatting) of the real time values of all process control computer variables that are present in the currently displayed program statement. Van de Lavoir discloses in (col. 35, lines 5-14) as indicated at step 372 Fig. 23, the parse tree is again traversed to assign position coordinates and icon rendering data (e.g., bitmaps) to each node (col. 35, lines 31). But Van de Lavoir does not explicitly specify the calculation of bit maps for a certain number of various objects. It would be have been obvious to one of ordinary skill in the art at the time the invention was made to visual appearance of a data logical flow or logic flow, in order to allow the visual quality or color of the symbols and the interconnecting network to change in accordance with live data received from the plant or process being controlled. Also it provides rapidly interpreting complex process control statements and permitting fast switching between different process control statements.

2. Claim 2.

"The method of claim 1, characterized in that in the calculating of the plurality of bit maps in advance, a filtration is performed for the sake of edge smoothing in the local region",

The step is obvious because the filtration and calculation illustrated by Van de Lavoir in Fig. 20 steps 366, 370 and 372.

1. Claim 3.

"The method of claim 1, characterized in that an associated precalculated and pre-stored background image has the various object representations superimposed on it", the step is obvious Van de Lavoir illustrates in Fig. 7a.

2. Claim 4.

"The method of claim 1, characterized in that the spatial difference between adjacent object representations along the path curve, which are precalculated and pre-stored as a respective bit map, is substantially smaller than the applicable object representations", the step is obvious Van de Lavoir illustrates in Fig. 7a. And also see in figs. 13 and b illustrate one indicator in different situations, the pointer is always the same object that is movable along a scale to a corresponding value.

3. Claim 5.

"The method of claim1, characterized in that for displaying object representations, which are located between two object representations having a respective precalculated and pre-stored bit map, a paired interpolation between the corresponding pixel values is performed", the step is obvious because, the information data requires first to store, calculate then to display the graphic object. Van de Lavoir discloses in (col. 37, lines 23-26) although the dynamic control of visual quality or color of the icons themselves is comparatively straightforward, evaluating the visual quality or color of the incoming (left) and outgoing (right).

4. Claim 6.

"The method of claim 5, characterized in that the pixel values are present separately in accordance with certain colors, preferably the three fundamental colors of red, green and blue, and the interpolation is performed separately for each color", Van de Lavoir discloses in (col. 2,

lines 32-44) In one form of the present invention, the variable graphic characteristic or visual quality of the graphical symbols includes the use of colors which may be recognized by people who otherwise have difficulty perceiving certain colors. Thus, for example, the color blue (any color) is used to indicate a TRUE condition, whereas the color orange is used to indicate a FALSE condition. By employing a consistent set of graphical symbols and applying a consistent set of rules for arranging these graphical symbols, the status of any process may be quickly conveyed to any qualified user, regardless of computer hardware platform employed and regardless of the native language of the user.

5. Claim 8.

"The method of claim 1, characterized in that a compression of the pre-stored bit map data is performed", the step is obvious because Van de Lavoir discloses in (col. 31, lines 54-57) the hidden pipe algorithm is called when the entire uncompressed graphical representation of a program statement will not fit in the display area of the window. It means data are compressed.

6. Claim 9

The method of claim 1, characterized in that the method is employed on a dashboard display device, located on board a motor vehicle, for representing a pointer. The step is obvious because the different locations of the method are not significant to the concept of the invention. The indicator can be installed on any type of surface that has easy access to watch.

7. Claim 11, "The method of claim 9 or 10, wherein an associated pre-calculated and pre-stored background image is a corresponding speed scale". The step is obvious because the speed scale is resulted from pre-stored or calculated data information.

8. Claim 12, "wherein the various object representations are object representations of the same object". Van de Lavoir in Figs. 13a and b represents different steps similar to the Appellant invention with one object.

Claims 7, 10, 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Van de Lavoir et al. in view of Iwamoto et al.

9. Claim 7.

The method of claim 6, characterized in that for the interpolation, the mean value for each pixel, weighted in accordance with the intermediate position, is calculated. Van de Lavoir does not explicitly specify the mean value for each pixel, however the step is obvious because Iwamoto teaches in (col. 9, lines 1-5) an average value is determined by the average value processing portion, and a fluctuation ratio is determined by fluctuation processing portion. And also one of the functions of the display controller is to calculate the mean value and weighted values of the pixels. Iwamoto et al. in right side of fig. 10 (measured data: meaning calculated and stored in advanced) illustrate the graphical representation are calculated and stored in advanced.

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Iwamoto into Van de Lavoir in order to displays data in a machine having a plurality of sensors which detect such data value as speed, pressure and temperature. A converter is then used to process output signals from these sensors. The apparatus further includes an input-calibration device for correcting the output signals from the converter and for issuing detected data, a cycle data processing mechanism for displaying data items such as injection speed and injection pressure every cycle based on the detected data, and control data processing mechanism for displaying shot-time items and fluctuations through

repeated injection cycles to monitor operation based on the detected data from the input-calibration means.

10. Claim 10, "The method of claim 9, wherein the pointer is a speedometer pointer, and wherein a pointer bitmap corresponding to a speed is read and displayed at a given time". Van de Lavoir does not explicitly specify the speedometer, however Iwamoto et al. teaches in (col. 4, lines 50-61) that, each channel representation is divided into two rows, wherein an upper row is used for displaying calibration-data type such as "INPUT VOLTAGE" and a lower row is used for displaying position name for sensors, such as "SPEEDOMETER ". Iwamoto et al. in fig. 10 illustrate different velocities (low and high) and also movable graphic object along a scale. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Iwamoto into Van de Lavoir in order to appreciated that computer technology has developed and continues to develop at a rapid pace. The combination of modifying the Iwamoto et al. meaning: inputting the signals from Fig. 14 into Fig. 16 b box 330 of Van de Lavoir et al. will provide similar output as Appellant's invention.

11. Claim 13, "wherein the object is a pointer and wherein the pointer moves along a scale, wherein in different position of the pointer, graphical representations are calculated and stored in advanced". Van de Lavoir does not explicitly specify the speedometer, however Iwamoto et al. teaches in (col. 4, lines 50-61) that, each channel representation is divided into two rows, wherein an upper row is used for displaying calibration-data type such as "INPUT VOLTAGE" and a lower row is used for displaying position name for sensors, such as "SPEEDOMETER ". Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Iwamoto into Van de Lavoir in order to appreciated that

computer technology has developed and continues to develop at a rapid pace. The combination of modifying the Iwamoto et al. meaning: inputting the signals from Fig. 14 into Fig. 16 b box 330 of Van de Lavoir et al. will provide similar output as Appellant's invention.

Respectfully submitted,

Javid A Amini
Examiner
Art Unit 2672

Javid Amini
March 30, 2004

Conferees

Michael Razavi

Bipin Shalwala

Striker Striker & Stenby
103 East Neck Road
Huntington, NY 11743